Access to Equity Capital Issues

Equity Capital and the Commercialization of Early Stage Technology in Alberta

April 10, 2002

EXECUTIVE SUMMARY

ISSUE: Access to equity capital in Alberta – Status, actions and issues.

BACKGROUND:

- Most analysts agree that Alberta's banking marketplace is adequately meeting the debt financing needs of Alberta businesses. Alberta industry stakeholders are not expressing concern with access to debt financing. In 1998, knowledge-based businesses made up 2.22% of major bank customers in Alberta compared to 2.34% for all of Canada and 2.86% in Ontario and 2.47% in Quebec. In the same year, one and a half percent of Canadian chartered bank business loan authorizations in Alberta were to knowledge-based industries as opposed to 2.14% for Canada as a whole. Alberta businesses also have access to other lenders such as the Alberta Treasury Branches and the Alberta Opportunity Company.

- Access to equity capital in Alberta as opposed to debt financing has been under extensive review since 1996. It focuses on the perceived lack of seed and venture capital funding for new and emerging industries. Alberta has averaged between 2% and 6% of the total Canadian venture capital investment over the past 10 years. Alberta's economy made up about 14% of total Canadian GDP in 2001.

- The institutional supply of venture capital in Canada grew dramatically in the 1990's and 2000. The development of Labour Sponsored Venture Capital Corporations (LSVCCs) in particular, offered a new tax shelter to individuals and doubled the institutional supply of venture capital during the decade. Alberta is one of only two provinces in Canada that does not piggyback federal LSVCC tax credits with provincial tax credits.

- The concern of some industry leaders is that the emerging manufacturing and technology industries in Alberta may be limited by a gap in the availability of equity capital at the early stage of commercialization.

- The comparatively low level of venture capital investment in Alberta in the 1990's has been explained in different ways:

    - Alberta's relatively small presence of locally managed venture capital does not attract the same interest as proposals from provinces that have more local venture capital and therefore greater local support.
    - Alberta is not generating a sufficient deal flow (outside of the energy sector) to justify establishment of venture capital funds in Alberta.
    - Canadian Venture Capital Association statistics may be under reporting Alberta venture capital activity due to a low Alberta membership in the Association.

- Over the past two years, steps have been taken by both the Alberta and federal governments to facilitate private equity investment in business. Insufficient time has passed to assess their impact.

ANALYSIS:

- Alberta policies rely on market forces to allocate capital. These policies created Canada's most attractive overall investment climate and highest economic growth rate but make the province less attractive for specific investments that receive tax or other concessions in competing provinces.

- The continued development of non-incentive based facilitation strategies such as InnoCentre, the Banff Venture Forum, BioForum and the Alberta Angel Capital Network may improve Alberta's competitive position over time.

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1.0 INTRODUCTION

A key to strengthening Alberta's economic base is the continued development of Alberta's manufacturing and emerging technology industry sectors. Some participants in these industries report that their growth and success in Alberta is being impeded by their inability to access early stage equity capital for commercialization.

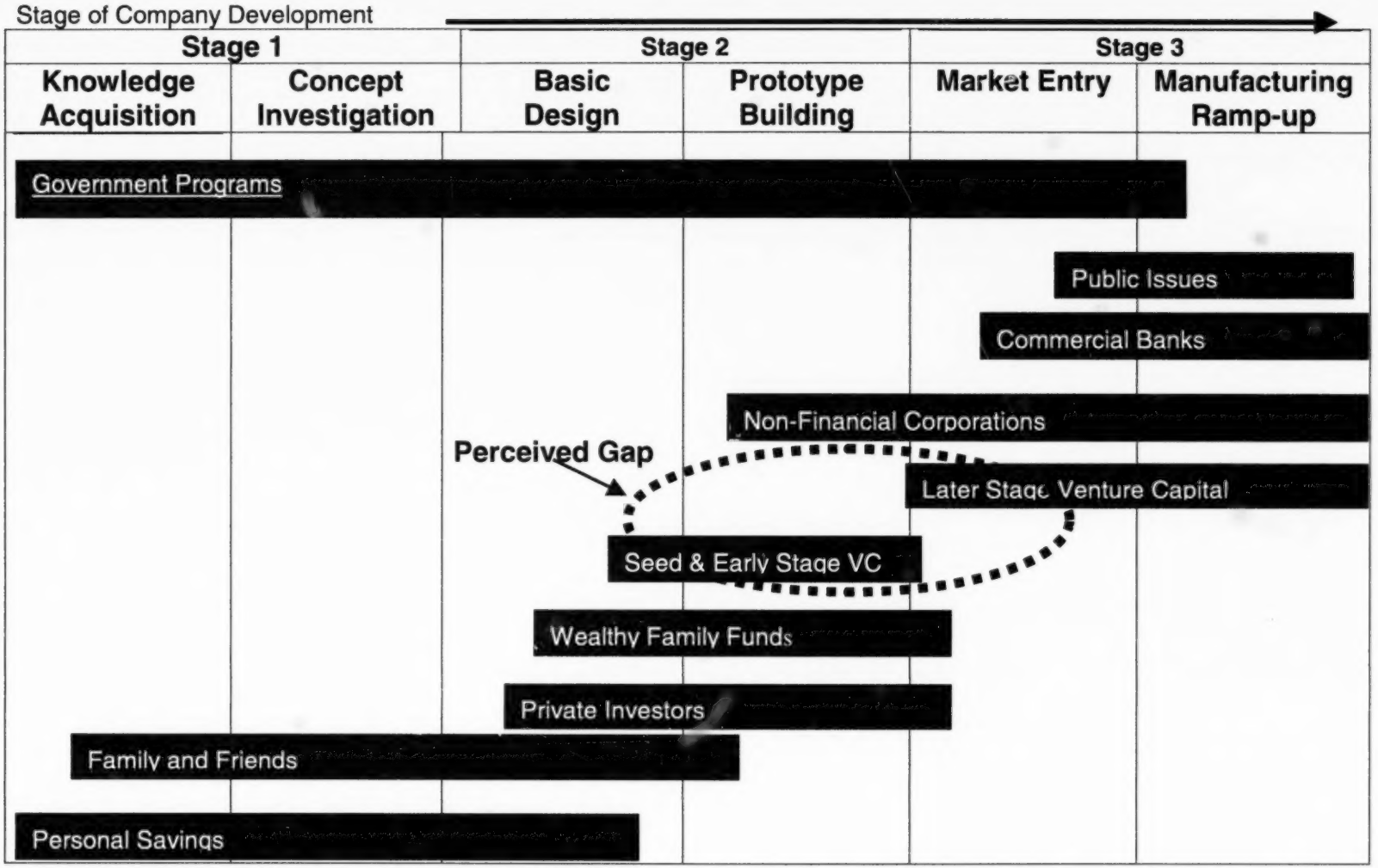
The capital needs of a business vary with its development. Chart 1 outlines sources of capital for a business at different stages of development. In the earlier, riskier stages, businesses rely heavily upon private equity financing . This is often due to the absence of an operating history or to limited assets for collateral. Mature businesses make greater use of debt financing or a combination of debt and equity from stock markets.

A complex financial market links business's capital needs with capital supply. A range of private and public institutions including banks, near-banks, stock markets, brokerages, credit unions, venture capitalists, crown corporations as well as individual owners and shareholders supports this market. The effectiveness of capital markets depends upon the availability of timely, accurate information to both investors and investees.

Access to capital becomes an issue when the capital market fails to supply funds at terms acceptable to business borrowers. The market's failure to provide these funds may be legitimate. The investment or the business may not be credit worthy for a host of reasons including ability to repay; commitment and character of the proponents; the prospects for the industry sector and the availability of collateral. Such decisions are the prerogative of the lender or investor.

On the other hand, worthwhile business projects may be denied access to the appropriate sources of capital because of gaps in the capital markets. Gaps in the capital markets may exist where sources of supply are unaware of the demand or lack information or expertise that prevents them from adequately assessing risks and benefits. Alternatively, the necessary financial institutions, instruments, cultures and traditions may not be in place. In such cases, legitimate business opportunities do not develop or may move to where the capital markets are more fully developed to meet their needs.

Chart 1.1 - Sources of Capital for Emerging Companies



Source: Davitech Consulting Inc., Report on Barriers to Technology Commercialization, July 1996

2.0 ALBERTA'S VENTURE CAPITAL MARKET CURRENT STATUS

2.1 INDUSTRY SECTORS IMPACTED

Firms affected by the access to equity capital issue are often in young or emerging industry sectors. These "new economy" industries are typically knowledge-based. Most of their value is associated with their human resources, copyrights, patents, proprietary systems and processes. The common characteristics of companies in these sectors are their relative lack of physical assets and their high mobility. Typical "new economy" sectors include information and communications technology; life sciences and health care; media and entertainment; new manufacturing technologies and advanced materials.

"New economy" industries are not the only route to broadening the economic base and achieving continued prosperity in Alberta. Alberta's manufacturing sector has shown considerable growth in the past decade. This growth has been fueled by strong efforts to use Alberta's abundance of commodities as a base for value-added manufacturing activities.

The cyclical nature of the commodities market and its impact on the costs of supply create substantial risks for manufacturers dependent on commodities. To buffer this, and become more competitive, manufacturers invest in technologies. Alberta's commodity-based manufacturers owe much of their present competitiveness to the ongoing development and application of technological advances.

Manufacturing technology must continue to make technological advances to remain globally competitive. This requires continued access to capital resources.

2.2 SUPPLY OF VENTURE CAPITAL

The size of Canadian venture capital market during 2000 was considerably less than in the US. In 2001, U.S. disbursements were down 65% relative to 2000. In comparison Canadian disbursements only declined 27% in 2001. It now seems evident that 2000 was a watershed year. The significant decline in value associated with technology equities in 2001 may foreshadow a significant change in venture capital investment trends.

Value of Venture Capital Disbursements, Canada & US – 1996 - 2001
(Billions of $Canadian)

Country	199€	1997	1998	1999	2000	2001
Canada	1.1	1.8	1.7	2.7	6.6	4.9
U.S.	18	27	34	93	163	57
Canada /U.S. Ratio	1:16	1:15	1:20	1:34	1:25	1:12

Sources: Canadian Venture Capital Association Annual Statistical Review & U.S. National Venture Capital Association Yearbook Note; assumes $1.00 U.S. = $C0.639

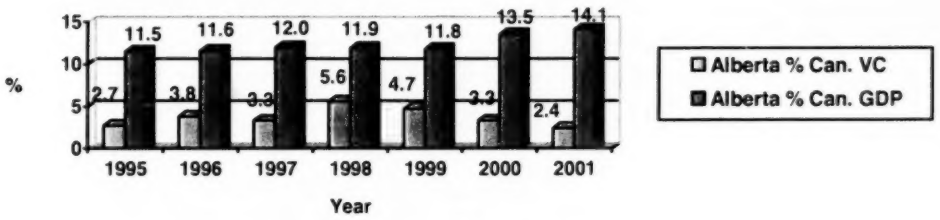
Early research (Davitech, 1996) concluded that a "gap" existed in Alberta's market for seed and early stage equity financing. Recent research (Equinox 2000; Ashton, 2001) does not confirm this finding although there is evidence of relatively few Alberta-based and Alberta-managed venture capital funds. The March 2000 examination of venture capital in Western Canada by Macdonald Associates Limited concluded that "While the foundation of "formal" locally managed venture capital is still somewhat limited in Alberta, the entrepreneurial opportunities in that province are starting to stimulate the formation of new pools or the establishment of a local presence by venture groups located elsewhere". The study also concluded, "Pools of private venture capital are most likely to form when there is critical mass in terms of investment opportunities and management talent. This is abundantly clear in British Columbia [and to a lesser extent in Alberta] where there is critical mass around the IT sector and the biotech community."[1]

The value of venture capital disbursements in Alberta in 2001 declined 51% over 2000. However, early stage Alberta investments only declined by 20%. Early stage deals attracted 80% of venture capital funds invested in Alberta in 2001.

The fundamental issue is to what extent the smaller quantity of Alberta-based funds is impeding the growth and development of emerging firms in Alberta. Institutional venture capital investments in Alberta over the past 10 years have fluctuated between 2% and 6% of the value of Canadian venture capital investment - less than half of Alberta's percentage share of Canadian GDP (14.1% in 2001).

The question remains whether or not the lower distribution of venture capital in Alberta vis à vis other provinces is a result of too little supply or too little demand. On the supply side, some venture capitalists have stated that the problem in Alberta is a lack of deal-flow – if there were more deals, they would establish operations in Alberta. On the other hand, representatives of the technology industry in Alberta argue that a lack of knowledge on the part of national and international venture capital about Alberta investment opportunities impedes their development vis à vis other provinces that have a more established venture capital industry (i.e. Ontario and B.C.). It is also argued that local venture capital helps create more deal-flow than would otherwise occur and can provide value added management expertise for local entrepreneurs.

Alberta Share - Canadian Formal Venture Capital (% Annual Dollars Invested)



Source: Canadian Venture Capital Association, Annual Statistical Reviews 2001, 2000, 1999, 1998, 1997, and 1996.

[1] Macdonald Associates Limited, "Analysis of VC Activity in Western Canada", March 2000, pg. 46

Several factors over the last decade have influenced Alberta's supply of venture capital.

Within Alberta, the provincial government moved away from becoming directly involved in the marketplace the early 1990's and withdrew its direct financial involvement in the development of emerging industry sectors and specific firms. Venture capital functions carried by the Alberta Opportunity Company were withdrawn; the assets of VenCap were sold. A policy of no direct loans or loan guarantees to specific businesses was adopted by Alberta.

Outside of Alberta saw the growth of the federal Labour Sponsored Venture Capital Corporation (LSVCC) program and similar provincial instruments. Introduced in the early 1990's, the establishment of LSVCCs provided individual investors a credit against federal personal income tax for investing in venture capital pools created under the program. Most provinces piggybacked the federal tax credit with provincial income tax credits and/or created similar provincial venture capital pools. Alberta did not introduce a provincial program.

In 2001 LSVCCs managed $8.4 billion or 42% of all Canadian formal venture capital assets valued at $20.1 billion at the end of 2001. Program criteria requiring that most of the investments be distributed in proportion to where the funds are raised make this source of venture capital relatively inaccessible to startup Alberta ventures.

Real returns on investments in LSVCCs have been low (4th quarter 2001 average 3.3 % over 5 years). Their attractiveness is their role as a tax shelter rather than the earnings potential of their investments. The availability of LSVCC's in other provinces will have caused some Alberta firms to relocate.

During the 1990's other Canadian provinces also expanded refundable corporate income tax credits against eligible research and development (R&D) expenditures by piggybacking provincial credits on federal credits or by introducing specific R& D tax credit programming. Alberta elected not to introduce such programs. The availability of the R&D tax credits influences corporate decisions on where to locate R&D and R&D intensive businesses. On average, over the 1995 – 1998 period, Ontario and Quebec business enterprises invested in R&D at more than double the rate as a percentage of value added output than Alberta businesses[2]. In addition, statistics for 1998 indicate that in Alberta, 101 employees were engaged in R&D for every billion dollars in GDP relative to 186 in Ontario and 228 in Quebec.

Another contrast to developments in Alberta has the more active venture capital investment approach of large institutional pools of capital such as the Caisse de Depot and the Ontario Teachers Pension Fund in Quebec and Ontario. In 2001 these funds were the single largest source of new capital contributing $2 billion, double the $1.1 billion they raised in 2000. Some observers believe that the participation of these large institutional pools of capital is a vital affirmation of legitimacy that attracts investment by

[2] Based on Statistics Canada Gross Expenditures on R&D and Expenditure based Provincial Gross domestic product at 1992 prices.

smaller institutional venture capital firms. Similar pools of institutional funds exist in Alberta. Alberta Revenue manages a number of these funds however they are directed by independent Boards. Alberta Revenue invests these funds as directed.

Canadian institutional pension fund commitments to private pools in 2001 declined to $155 million from $400 in 2000. Direct investments by these funds were $501 million for 2001, down from $1.5 billion in 2000.

A relatively undocumented segment of venture capital markets is that of individual "angel" investors. The amount of venture capital funding provided by this source is significant. In 1998 it was estimated to equal about $10 billion for all of Canada placing it on par with the assets of formal venture capital companies. The value angel investment in Alberta was estimated in 1999 to be about one half of the total of formal venture capital firms.

Until recently the dominant target of angel investors in Alberta has been the traditional sectors. While a study in 2000 indicated rising interest in technology investments by angel investors (42.9%), the recent collapse of technology equities may result in a return to traditional investment patterns in Alberta.

In the Canadian context, if the deal flow in the provinces that have more developed sources of venture capital absorbs the funds available, opportunities in more distant provinces will receive less interest.

While Alberta does not have the array of tax shelters and tax incentives that are being offered by other jurisdictions, the province's low overall personal and corporate tax regime, lower operating costs, high growth and quality of life do influence and attract investment.

2.3 DEMAND FOR VENTURE CAPITAL

Past research noted, "The proportion of total Canadian investments made in the province of Alberta appeared to be consistent with the proportion of proposals received from the province."[3]. This is an important statement when considered in the context of the finding that "...further, the proposals [from Alberta] do not appear to be of higher quality."

Taken together these findings imply that Alberta's low venture capital draw down may be attributable to a lower volume of proposals (lower deal-flow) than other from other parts of Canada. Quotations from survey respondents suggested an expected conversion rate of proposals to projects funded ranging from around 3% to 4 % to as high as 13%[4]. This provides an indication of the small percentage of deals that actually are acceptable when exposed to the careful due diligence of experienced venture capital investors.

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[3] Equity Capital for Early Stage Alberta Knowledge Based Businesses, Equinox Management Consultants, pg.14

[4] Equity Capital for Early Stage Alberta Knowledge Based Businesses, Equinox Management Consultants, pg.14-15

Some firms active in Alberta public equity markets argue that the Alberta deal-flow is adequate and that low deal-flow statistics simply reflect under-representation of Alberta firms in the Canadian Venture Capital Association.

Annual Deal-Flows – No. Of Financings, Equity Investments and Total Value

Year	AB			ON			PQ			BC		
	Fin. #	Inv. #	$ (mm)	Fin. #	Inv. #	$ (mm)	Fin. #	Inv. #	$ (mm)	Fin. #	Inv. #	$ (mm)
1997	43	66	61	259	415	704	387	517	546	80	161	207
1998	48	79	93	273	428	531	511	654	630	82	168	147
1999	28	61	129	258	480	1,257	465	673	727	75	176	250
2000	65	117	243	424	854	2,939	620	985	1410	120	293	540
2001	32	68	119	286	726	2028	433	774	956	109	278	502
Avg.	43	78	129	300	581	1492	483	721	854	93	215	329

Source: Canadian Venture Capital Association, Annual Statistical Reviews

The above venture capital investment statistics are relatively consistent with the fact that on average Alberta businesses spend less than half as much on R&D as a percentage of their value added output as businesses in Ontario and Quebec[5].

The lack of a solid venture capital source in Alberta does not only impact the availability of equity capital. Venture capital investors place considerable importance on the quality of management in making their investments. They have a concern for the quality of management right across Canada and the management skills of Alberta technology entrepreneurs are, in their view, undifferentiated with those of entrepreneurs in other provinces. Venture capital investors can contribute business expertise and important connections in addition to money to the companies that they support. This extra value-added can be critical to the success of early-stage companies and to established companies alike. Local investors share their business expertise and contribute positively to the success of new ventures.

Past research[6] has also indicated that Canadian technology companies require penetration of foreign markets (e.g. the U.S.) to ensure their success given the relatively small domestic market available in Canada. Industry Canada concluded that access to export markets was the most significant determinant of success for Canadian technology companies.

[5] Expressed as dollars venture capital financing and investment as a percent of provincial GDP based on 1997 and 1998 Statistics.

[6] The Knowledge-Based Economy: Shifts in Industrial Output, Working Paper No. 15, January 1997, Surendra Gera and Kurt Mang

3.0 POLICY ISSUES

The effective development of profitable technology or knowledge-based business clusters has several pre-conditions:

- A strong foundation of basic scientific research
- The availability of highly skilled knowledge workers
- A technology-specific commercialization infrastructure or cluster
- A supply of technology entrepreneurs with appropriate management skills and access to related experience
- A competitive tax regime for early stage businesses
- An adequate supply of equity capital

Two of these pre-conditions, basic scientific research and a competitive tax climate, can be addressed independent of the other conditions. The others - the supply of skilled knowledge workers, a technology-specific infrastructure and the supply of technology entrepreneurs are only partially independent of the other conditions. The final pre-condition, an adequate supply of equity capital is, to a great extent, determined by success in creating the others.

Alberta's economic development policy currently emphasizes an industry-led, market driven approach in which the role of government is that of a facilitator. The strategy has been to level the playing field and not to distort private investment decisions by providing incentives to specific industries or sectors.

Alberta's corporate tax policy is based on rewarding successes and does not give one business activity preferential treatment at the expense of others. It is complemented by a competitive personal tax and cost of living regime that helps attract and retain skilled personnel to conduct the advanced research needed in the knowledge-based economy.

In the case of R&D, the province does provide significant support through entities such as the Alberta Heritage Fund for Medical Research, the Alberta Ingenuity Fund and the Alberta Agriculture Value-Added Corporation. The Alberta Science and Research Authority also co-ordinates directly funded research by departments and agencies.

3.1 RECENT GOVERNMENT INITIATIVES

Over the past two years, both the federal and provincial government have taken steps to facilitate access to equity capital and technology commercialization:

1. Recent reductions in the taxation of capital gains income (inclusion rate lowered from 75% to 50%) reward equity investments and have made Canadian capital gains tax rates as attractive as those in the U.S.

2. Both Alberta and Canada have announced significant general corporate income tax reductions. The combined Alberta/Canada general tax rate declined from 44.2% in 2000 to 39.1% as of April 2002. Scheduled further Alberta reductions were revised in Budget 2002 to bring this rate down to 34.6% by April 2004. This compares favourably to the average U.S. federal/state combined rate of 42.3% in 2001. Alberta's separate manufacturing and processing rate was effectively eliminated April 2001 and Alberta manufacturers will benefit from the provincial reductions. Alberta's small business corporate tax rate was lowered from 6% to 4.5% for 2002 and should still decline to 3% by April 2005. The level of corporate income tax only becomes an immediate factor for corporations in a taxable position.

3. The establishment of Inno-Centre Alberta (ICA) was announced on September 18, 2001 – This initiative will see the establishment of an Alberta franchise of this Quebec based organization whose objectives are to select significant technology companies and facilitate their commercialization through mentoring, training and possible assistance finding equity sources in return for a single digit equity position. In Quebec and Ontario after rigorous screening 15 companies a year have been successfully helped in a two-year business development program.

4. Venture capital forums such as the Banff Venture Forum, BioForum and the new Alberta Angel Capital Network (AACN) are being used to improve the early stage deal flow process. These initiatives are intended to link angel investors and entrepreneurs and support high technology companies while screening and polishing specific technology commercialization proposals. (Charts A.4 & A.5)

5. Alberta Opportunity Company (AOC) in cooperation with the Alberta Research Council is in the process of launching a joint initiative that will provide up to $2 million per year in loans for the development and commercialization of technology by small clients of the Alberta Research Council. AOC financing will be made available for the purchase of land, building, equipment, inventory and for working capital. AOC will also offer export guarantees to these companies.

6. As of July 31, 2001 the Alberta Heritage Savings Trust Fund (AHSTF) has placed or committed to place $139 million with private equity fund managers. Drawdowns total $66.9 million.

   These commitments form the private equity pool established by AHSTF in 1998 (PEP 98). The pool provides the AHSTF exposure to private equities and venture capital. PEP 98 is only allowed to participate in private equities through private equity managers that operate at arms length from their investments. PEP 98 is also not allowed to take more than 25% participation.

   Approximate placement of the $66.9 million in drawdowns is as follows:

   - 90% of the $66.9 million is classified as merchant banking which is defined as financing large established business expansions etc.

- The remaining 10% of the $66.9 million is classified as venture capital. Approximately 20% of drawdowns classified as venture capital are invested in Alberta.

Some industry stakeholders advocate that a small proportion (1-2%) of the AHSTF should be allocated to Alberta based private equity funds or pools.

7. On September 27, 2001 the Alberta and British Columbia Securities Commissions announced regulatory changes that will eliminate the need for Offering Memoranda and Prospectus's in situations involving private investment in closely held firms and accredited investors. These changes are proposed for comment by November 30th and are expected to make it easier for entrepreneurs to raise equity capital.

It is too early to measure the impact of these initiatives on the availability of equity capital in Alberta. Industry representatives from the technology sector continue to claim that they are insufficient to address the "perceived gap" in early stage private equity funding in Alberta.

ALTERNATIVE STRATEGIES TO IMPROVE ACCESS TO CAPITAL

Charts A.1, A.2, and A.3 display areas where policies can be developed to increase the growth rate and number of technology-based businesses in Alberta. Action has been taken on many of these although support of any area can be increased or decreased.

The assumption underlying these charts is that all strategies and actions to increase the draw down of venture capital investment for technology commercialization in Alberta can be included under three basic objectives – actions to increase the supply of venture capital; actions to increase the demand (deal-flow) or actions to improve linkages in the market for venture capital. Active and inactive current proposals and high profile ongoing activities are outlined below. An inventory of past and current ongoing actions that have been employed or considered to effect improvements under these basic objectives is provided in Appendix B.

Equity Capital Supply

Active Proposals:

- The Alberta Venture Pool Trust Proposal – establishment of a pool of venture capital funds by using a portion of the endowment resources of several Alberta institutions including the Universities of Calgary, Alberta and Lethbridge, the Alberta Heritage Foundation for Medical Research and the Alberta Ingenuity Fund. Funds provided by these institutions would be used to leverage private funds. The proposal was approved by the AEDA for consideration by the institutions and provided to the Minister of Finance for information. The universities have not yet endorsed this proposal. *Under active consideration / examination.*

- The PACT/IRB proposal – creation of a Western Canadian venture capital fund by offering a 5:1 incentive to large foreign owned companies with to earn forgiveness of Canadian Industrial Regional Benefit obligations by investing in the fund. To date the response of these firms appears to have been less than enthusiastic since they have never been pressured to honour these obligations in the past. *Pilot discussions underway.*

- The Westlink Innovation Network Proposal – calling for loan guarantees by Western Economic Diversification to catalyze the establishment of Western Canadian venture capital funds to invest in early stage technologies developed at Western Canadian universities.

- The Westlink Innovation Network Proposal – proposing measures to facilitate syndication of Angel investors. Work on the Alberta Angel Capital Network involving Innovation and Science, Westlink and the InnoCentre Alberta is directed to this objective as well as upgrading, screening and refining business proposals.

Inactive Proposals:

- A refundable R&D tax credit against provincial corporate income tax for investment expenditures eligible under the federal Scientific Research and Experimental Development Tax Credit program. Eligibility would be predicated on provision of royalty rights to the province on future income derived from the R&D. . *Developed for discussion purposes by AED in 1999.*

- An Alberta Technology Growth Trust Fund modeled after Real Estate Investment Trusts (REITs) or Energy Royalty Trusts. Operating as a trust fund it would offer individuals the opportunity to participate in a diversified portfolio of Alberta-based knowledge-oriented businesses. Trust unit holders would receive income dependent upon the net revenue generated by the companies held in the portfolio less operating costs and administration expenses. . *Developed for discussion purposes by AED in 1999 currently being reconsidered by Alberta Innovation and Science.*

- An Alberta Technology Development Corporation – Modeled after the Agriculture Value Added Corporation this would be a market driven organization designed to become self-sufficient through revenues derived from investment in Alberta technology related research and business ventures. *Developed for discussion purposes by AED in 1999.*

Equity Capital Demand

Inactive Proposals:

- Incubators / incubation institutes to increase venture capital demand by providing a safe, affordable, integrated service business environment for small, immature high technology entrepreneurs whose sales will not yet support the cost of sustained operation. The concept is intended to increase the rate of growth and survival of these firms. The incubators would be funded by government grants. *Developed for discussion purposes by AED in 1999.*

Market Linkages

Active but not underway:

- Establishment of a National Research Council nanotechnology research facility in Alberta. *Announced on August 16, 2001.*

Chart A.1 - Venture Capital Supply – Policy Instruments

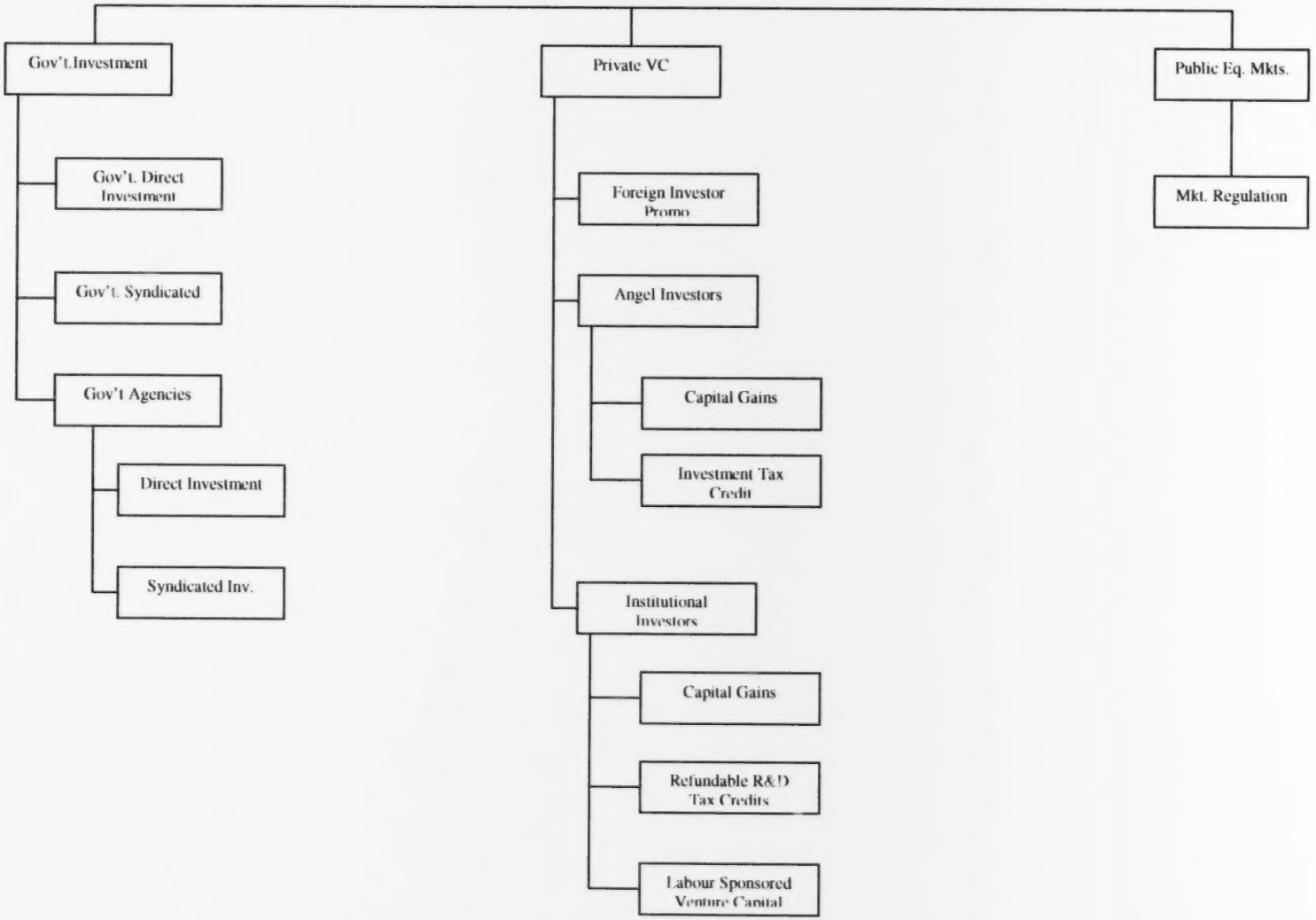


Chart A.2 - Venture Capital Demand – Policy Instruments

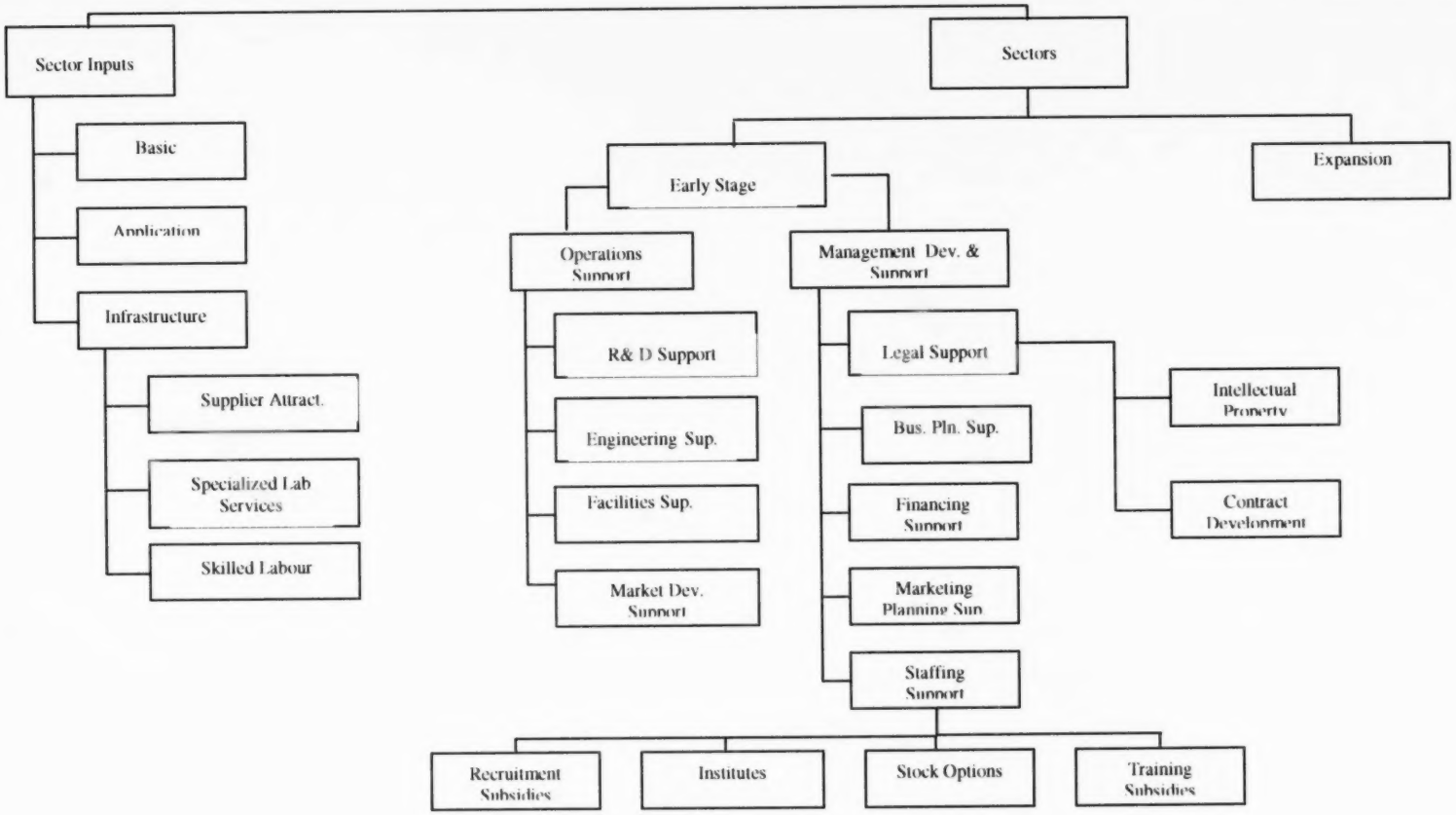


Chart A.3 - Venture Capital Market Linkage – Policy Instruments

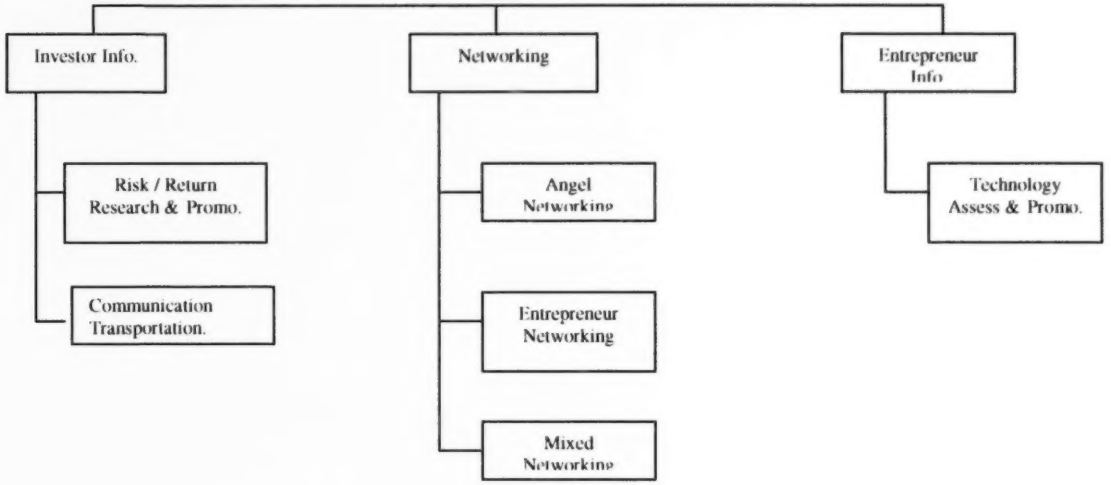


Chart A.4
Angel Network Process

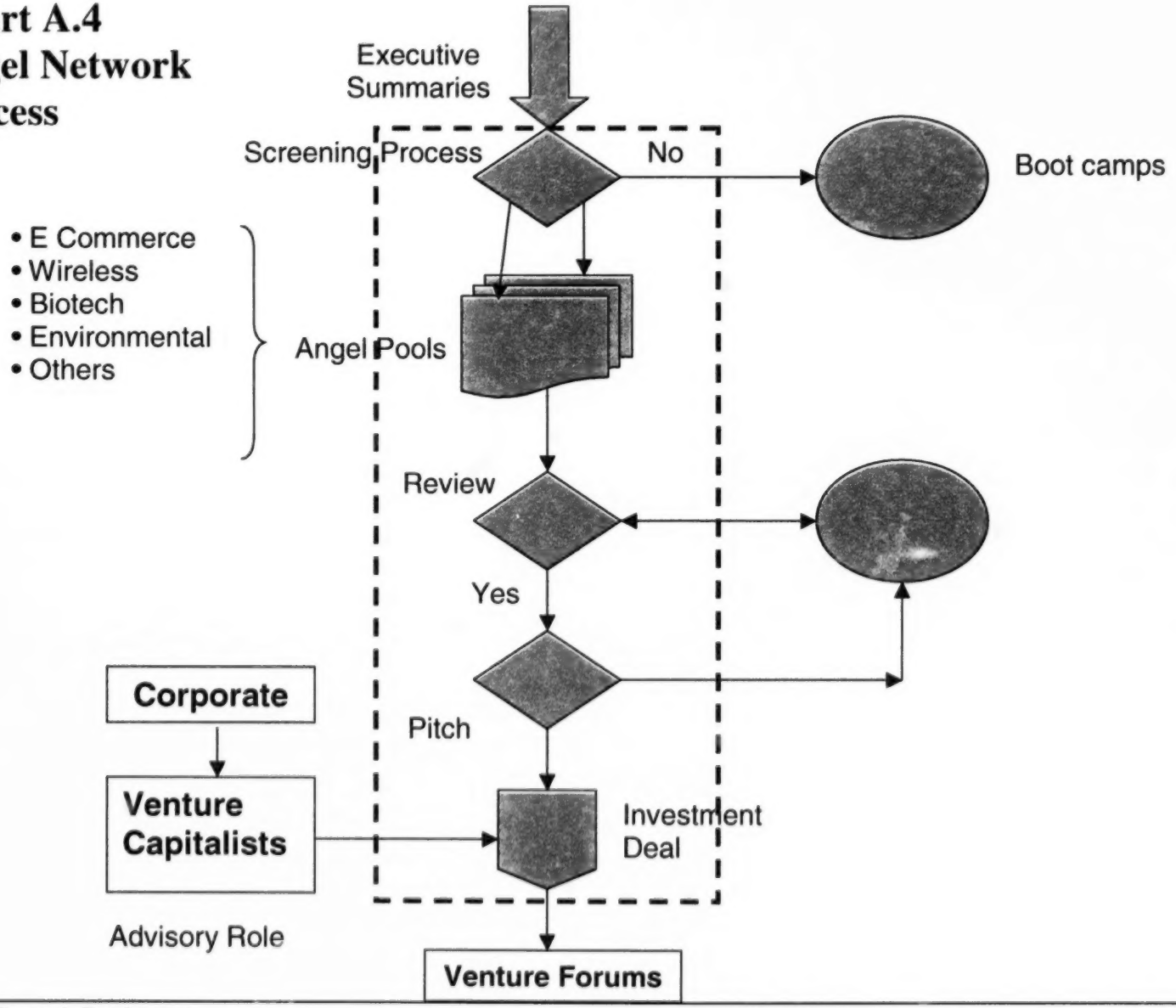
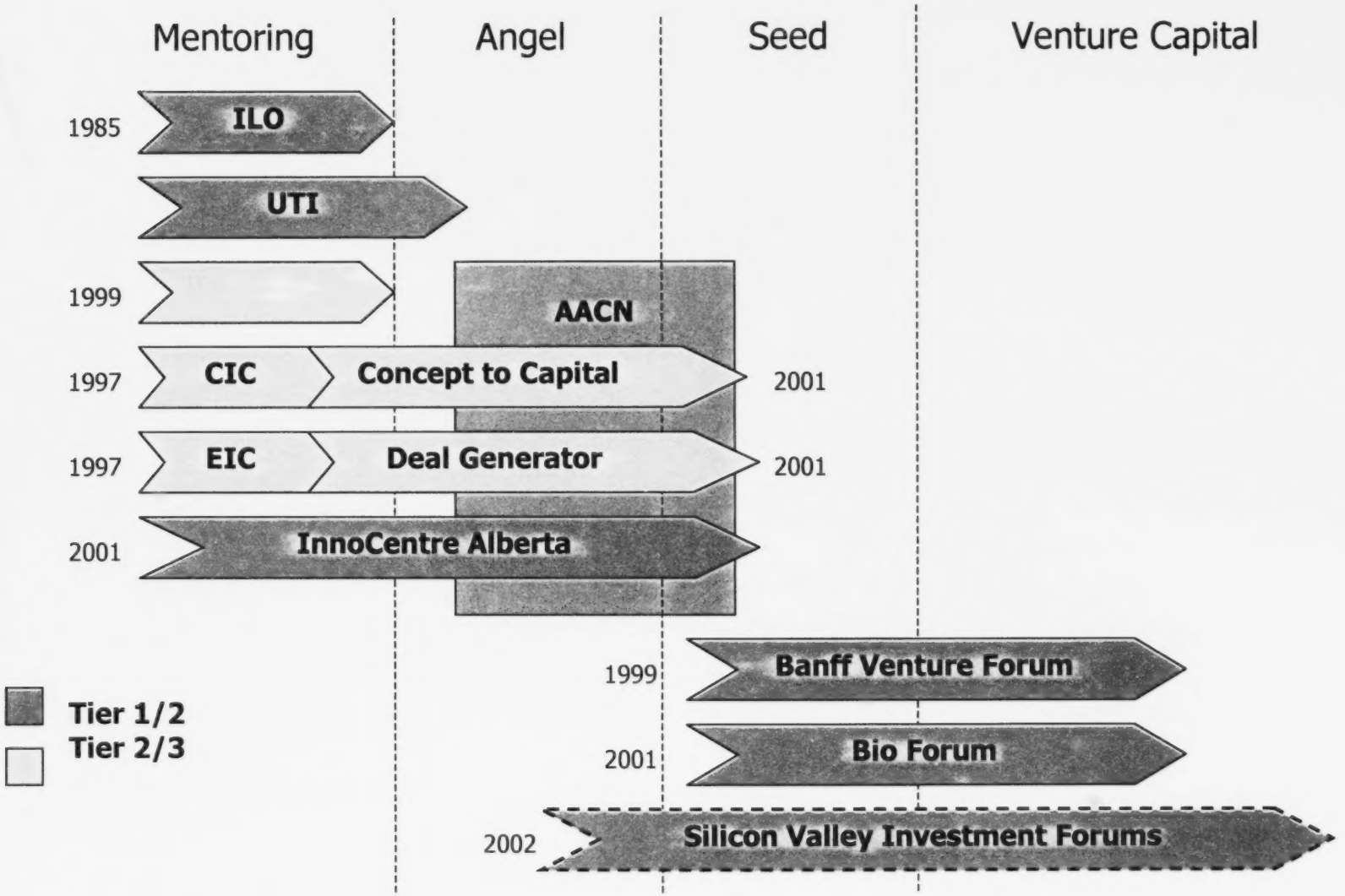


Chart A.5 Alberta Path for Investment



INVENTORY OF PAST AND CURRENT STRATEGIES AND ACTIONS

Equity Capital Supply

Past and ongoing government actions include:

- General personal and corporate income tax reductions are being phased in to reduce the marginal income tax rates for high-income earners and increase savings and investment relative to consumption.

- Up until the 1990's, direct government investment, grants and loan guarantees were used to finance new technology companies e.g. Novatel, Magcan, Westaim, Swan Hills Waste Treatment (all terminated or privatized).

- Personal capital gains inclusion rates were reduced in 2000 in successive stages from 75% to 50% to improve returns to individual angel investors and corporations.

- The Alberta Heritage Trust Fund has either committed or invested $139 million in a number of private venture capital funds.

Dormant or Rejected Proposals:

- 10% refundable R&D Tax Credits.

- Enabling legislation to permit the establishment of one Labour Sponsored Venture Capital Corporation in Alberta.

- Proposal to link elimination of Alberta's financial institutions capital tax to participation of these institutions in an Alberta based venture capital fund. *Note: This tax has now been eliminated without any linkage to venture capital investment.*

- Call to consider elimination of Alberta's Royalty Tax Credit.

- The TechFund proposal calling for government to invest $10 million or 50% of a private, Alberta based technology fund.

- The Heritage Fund For Technology Commercialization proposal calling for Agencies such as the Alberta Heritage Foundation for Medical Research and the Alberta Ingenuity Fund to initiate a $200 million fund by providing $100 million to acquire and license or resell 50 technologies currently held by the Universities of Alberta and Calgary.

Equity Capital Demand (deal flow)

Past and ongoing government include:

- Marketing mentoring programs were made available on a subsidized basis to Information Technology and Medical Devices have been offered directly by government to facilitate market presentation and development (terminated).

- Financial support is provided to University Technologies International at U of C and to the Industry Liaison Office at U of A.

- ARC's Technology Transfer Group operates using partnerships with large Alberta corporations to encourage investment in technology development.

- The province has funded a doubling of post-secondary graduates in information technology.

- The province eliminated machinery and equipment from property tax assessment (completed).

- The province facilitated the establishment of the Alberta Technology Commercialization Network to address fundamental issues surrounding technology commercialization in Alberta.

- The province supported the establishment of a number of technology specific institutes in partnership with the federal government and industry. Examples include TRLabs, Alberta Microelectronic Centre (privatized), The Laser Institute (privatized), Westaim (privatized), The High Performance Computing Centre (terminated), and The Centre For Engineering Research etc.

- In the 1970's and 1980's, applied science and engineering programs were sponsored to develop technologies to exploit Alberta's resources. Outcomes included aspenite developed by the Alberta Research Council (ARC) and the development of technology to extract oil from tar sands economically by the Alberta Oil Sands Technology Research Authority (AOSTRA).

- The province created the Alberta Heritage Foundation for Medical Research and the Alberta Ingenuity Fund providing an initial endowment of $500 million and committing to a further $500 million bringing the total endowment to $1 billion.

- The Agriculture Value Added Corporation, a not-for-profit corporation now owned by industry stakeholders that was established with $35 million in Alberta government funding plus federal funding, continues to provide financial support through investments in agri-business research and agri-business ventures. The corporation also operates a web site and sponsors conferences

Market Linkages

Past and ongoing government actions include:

- Investment matching programs to bring investors and entrepreneurs together (terminated).

- Alberta Innovation and Science has developed the Alberta Inventors Information Index, an interactive data base and hotline to help SME's identify sources of financing, mentoring and other assistance.

- Alberta Innovation and Science with private sector support is working with International Angel Investor Inc. to organize pools of angel investors in Alberta into the Alberta Angel Capital Network that includes other technology transfer organizations (Charts A.4 & A.5).

- Alberta Innovation and Science is funding and organizing Venture Capital forums and to increase awareness and promote early stage high technology investments.

- The province is proceeding with implementation of the SuperNet project to provide high-speed Internet access across the province.

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